

REMARKS

I. Introduction

Claims 23-28, 31, and 33-45 are pending in the present application. Applicants gratefully acknowledge Examiner allowing Claims 25-28 and 34-36. In view of the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration of the pending claims is respectfully requested.

II. Rejection of Claims 23, 24, 31, 33, and 37-45 under 35 U.S.C. § 112, first paragraph

Claims 23, 24, 31, 33, and 37-45 were rejected under 35 U.S.C. § 112, first paragraph as lacking a written description in the specification. Examiner in particular objects to Claim 23 and presumably Claim 37 on which Claims 24, 31, 33, and 38-45 depend in regards to a claimed range. Applicants have amended Claims 23 and 37 to conform the claimed range to the stated range in the Specification. For this reason, Applicants respectfully submit that the basis for this rejection no longer exists and the rejection should be withdrawn.

III. Rejection of Claims 23, 24, 31, 33, and 37-45 under 35 U.S.C. § 103(a)

Claims 23, 24, 31, 33, and 37-45 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,224,836 to Moisan et al. (“Moisan et al.”) in view of U.S. Patent No. 6,246,301 to Sogo et al. (“Sogo et al.”). Applicants respectfully submit that this rejection should be withdrawn for at least the following reasons.

A rejection under 35 U.S.C. § 103(a) requires three criteria to be satisfied by the Examiner: 1) a suggestion or motivation to combine references; 2) a reasonable expectation of success; and 3) the references must teach or suggest all the claim limitations. See In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Sogo et al. teach an “HF circuit apparatus” in which the generation of a plasma is neither provided nor is possible. In particular, Sogo et al. teach at column 1, lines 38-42 a “high-frequency circuit

apparatus in which the leakage power is sufficiently reduced without using a metal casing, to thereby prevent an electromagnetic field coupling between the high-frequency circuits.” Examiner contends in Office Action at page 4 that:

Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to experimentally determine the hole diameters. By doing so, one would reap the benefits of controlling the susceptance of the waveguide.

Changing hole diameters in a circuit apparatus to control signal interferences between two HF circuits in the circuit apparatus (See Sogo et al. at column 2, lines 18-42) is a different technical goal or motivation than generating a plasma using microstructure discharges as taught in the present application. In electrical engineering, susceptance relates to AC flow through a circuit and not to the generation of plasma. For at least this reason, there is no suggestion or motivation to a person having ordinary skill in the art to combine the teachings of Sogo et al. and Moisan et al. Examiner has provided no other rational suggesting a motivation to combine these unrelated references.

Applicants also respectfully point out that even the combination of the teachings of Moisan et al. and Sogo et al. do not lead to a device for plasma generation using microstructure discharge of the present application or to a reasonable expectation of reproducing the present application because the components taught not only by Moisan et al. but also by Sogo et al. are macroscopic. For example, Sogo et al. teach “The width W of the waveguide corresponds to the length of the transmitter 2 or the receiver 3, and ***is usually 10 and several cm or larger***” (emphasis added). Sogo et al., for example, further provide a specific value of 18 cm (180 mm) at column 7, line 2. Moisan et al. for example teach hole diameters of 6-8 cm (60-80 mm) at column 6, lines 29-30. A person skilled in the art will recognize that these structures do not correspond to the microstructure discharge of the present invention and that Moisan et al. even in view of Sogo et al. can not readily be adapted to the present application.

For at least these reasons, Applicants respectfully submit that this rejection should be withdrawn.

CONCLUSION

Applicants respectfully submit that all pending claims of the present application are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

The Office is authorized to charge any fees associated with this Amendment to Kenyon & Kenyon Deposit Account No. 11-0600.

Respectfully submitted,

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